

**BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES  
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re the Application of:	) Confirmation No.: 2259
	)
Medford Alan DYER	) Group Art Unit: 2681
	)
Serial No.: 10/715,001	) Examiner: Smith, Sheila B.
	)
Filed: November 17, 2003	)
	)
For: PORTABLE SPEAKERPHONE WITH	)
PIVOTING MICROPHONE BOOM	)
	)

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**APPEAL BRIEF UNDER 37 CFR § 41.37**

**Mail Stop APPEAL BRIEF**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Applicant submits this Appeal Brief pursuant to the Notice of Appeal filed May 1, 2007 and in response to the Notice of Non-Compliant Appeal Brief mailed August 2, 2007. This brief is submitted in triplicate.

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**I. REAL PARTY IN INTEREST**

The real party in interest is the assignee GN Netcom.

**II. RELATED APPEALS AND INTERFERENCES**

To the best of Applicant's knowledge, there are no related appeals or interferences.

**III. STATUS OF CLAIMS**

Claims 1-28 are pending. Claims 1-28 are rejected, and are appealed. Claims 1, 3, and 22 are independent claims.

**IV. STATUS OF AMENDMENTS**

Response After Final was filed on February 12, 2007, in which no claim was amended.

**V. SUMMARY OF CLAIMED SUBJECT MATTER**

The present section of the Appeal Brief is set forth merely to comply with the requirements of 37 C.F.R. § 41.37(c)(v) and is not intended to limit the pending claims in any way.

Claim 1 recites:

A speakerphone comprising:  
a housing;  
a speaker coupled to said housing;  
a microphone boom pivotably coupled to said housing, said microphone boom having at least a first position and a second position; and  
a microphone mounted to said microphone boom;  
wherein a region of said microphone having a lowest sensitivity is aimed at said speaker when said microphone boom is located in either said first position or said second position.

Claim 3 recites:

A speakerphone comprising:  
a housing;  
a speaker mounted to said housing;  
a unidirectional microphone;  
a microphone boom pivotably coupled to said housing, said microphone boom capable of being placed at a plurality of positions, said unidirectional microphone mounted at a distal end of said microphone boom, wherein a region of said microphone having a lowest sensitivity is aimed at said speaker when said microphone boom is located in any of said plurality of positions; and  
a wireless networking module adapted to transmit first signals via a short distance wireless network to a peripheral electronic device and to receive second signals via said short distance wireless network from said peripheral electronic device, wherein said first signals are initially received by said unidirectional microphone, and wherein said second signals are output by said speaker after receipt by said wireless network module.

Claim 22 recites:

A speakerphone comprising:  
a housing;  
a speaker mounted to said housing;  
a unidirectional microphone;  
a sound processor coupled to said unidirectional microphone;  
a portable power source coupled to said sound processor;  
a microphone boom pivotably coupled to said housing, said microphone boom capable of being placed at a plurality of positions, said unidirectional microphone mounted at a distal end of said microphone boom, wherein a region of said microphone having a lowest sensitivity is aimed at said speaker when said microphone boom is located in any of said plurality of positions; and  
a Bluetooth enabled networking module adapted to transmit first signals to a Bluetooth enabled cellular telephone and to receive second signals from said Bluetooth enabled cellular telephone.

The specification of the subject application describes embodiments of a speakerphone. The speakerphone includes a housing, a speaker coupled to the housing, and a microphone (page 3, line 18 to page 4, line 6; figures 1-3). The microphone (see for example, reference numeral 107) has a lowest sensitivity and is aimed at the speaker (see for example, reference numeral 111), regardless of the position of the microphone boom (see for example, reference numeral 105) (column 4, lines 7-13).

In particular, with respect to **claim 1**, examples of a speakerphone that includes a housing (101), a speaker (111) coupled to said housing, a microphone boom (105) pivotably coupled to said

housing, said microphone boom having at least a first position and a second position, and a microphone (107) mounted to said microphone boom (105), wherein a region of said microphone having a lowest sensitivity is aimed at said speaker (111) when said microphone boom is located in either said first position or said second position, are described at least on page 3, line 18 to page 4, line 6, and figures 1-3 of the specification.

With respect to **claim 3**, examples of a speakerphone that includes a housing (101), a speaker (111) mounted to said housing, a unidirectional microphone (107), a microphone boom (105) pivotably coupled to said housing, said microphone boom capable of being placed at a plurality of positions, said unidirectional microphone mounted at a distal end of said microphone boom, wherein a region of said microphone having a lowest sensitivity is aimed at said speaker when said microphone boom (105) is located in any of said plurality of positions, and a wireless networking module adapted to transmit first signals via a short distance wireless network to a peripheral electronic device and to receive second signals via said short distance wireless network from said peripheral electronic device, wherein said first signals are initially received by said unidirectional microphone (107), and wherein said second signals are output by said speaker (111) after receipt by said wireless network module, are described at least on page 3, line 18 to page 4, line 6, page 6, lines 3-24, and figures 1-3 and 5 of the specification.

With respect to **claim 22**, examples of a speakerphone that includes a housing (101), a speaker (111) mounted to said housing, a unidirectional microphone (107), a sound processor coupled to said unidirectional microphone (107), a portable power source coupled to said sound processor, a microphone boom (105) pivotably coupled to said housing (101), said microphone boom (105) capable of being placed at a plurality of positions, said unidirectional microphone mounted at a distal end of said microphone boom, wherein a region of said microphone having a lowest sensitivity is aimed at said speaker (111) when said microphone boom is located in any of said plurality of positions, and a Bluetooth enabled networking module adapted to transmit first signals to a Bluetooth enabled cellular telephone and to receive second signals from said Bluetooth enabled cellular telephone, are described at least on page 3, line 18 to page 4, line 6, page 6, lines 3-24, and figures 1-3 and 5 of the specification.

## VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL

The issues for this appeal are:

(1) whether claims 1 and 2 are unpatentable under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,991,646 (“Frank”), and

(2) whether claims 3-22 are unpatentable under 35 U.S.C. § 103(a) as being obvious over Frank in view of U.S. Patent Application Publication No. 2004/0063456 (“Griffin”).

## VII. ARGUMENTS

### I. Claim Rejections under 35 U.S.C. §102

Claims 1 and 2 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 5,991,646 (“Frank”). Applicant respectfully traverses the rejection, and notes that in order to sustain a claim rejection under § 102, each of the claimed elements must be found, either expressly or inherently, in the cited reference.

Claim 1 recites a region of a microphone *having a lowest sensitivity*, wherein the region is *aimed at a speaker when a microphone boom is located in either said first position or said second position* (Emphasis Added). Frank does not disclose or suggest such limitations. Rather, Frank discloses a microphone arm 102 that is rotatably coupled to a casing 108 (column 3, lines 18-20). According to the Office Action, figure 5 of Frank allegedly discloses the above limitations. However, the cited passage of Frank does not disclose or suggest a microphone region *having a lowest sensitivity*, much less, a microphone region having a lowest sensitivity *that is aimed at a speaker when a microphone boom is located in either a first or a second position*. For at least the foregoing reasons, Applicant respectfully requests that the rejection for claims 1 and 2 be withdrawn.

### II. Claim Rejections-35 U.S.C. §103

Claims 3-22 stand rejected under 35 U.S.C. §103(a) as being obvious over Frank in view of U.S. Patent Publication No. 2004/0063456 (“Griffin”). Applicant respectfully traverses the rejection.

Claims 3 and 22 recite a *unidirectional* microphone (Emphasis Added). As is known to one of ordinary skill in the art, a unidirectional microphone is significantly different from an omni-directional microphone and bi-directional microphone in that a unidirectional microphone has only one axis of maximal sensitivity. On the other hand, an omni-directional microphone has the same sensitivity in all directions, and a bi-directional microphone has two axes of maximal sensitivity. See “Microphone Basics - Pickup Patterns” by Stephen Mackey, from the notaviva.com website, and “Polar Patterns Explained” from the dolphinmusic.co.uk website, both of which were entered in Applicant’s response dated September 25, 2006, and are attached herewith in the Evidence Appendix.

Frank and Griffin do not disclose or suggest a unidirectional microphone, as recited in claims 3 and 22. According to the Office Action, column 1, lines 32-33 of Frank allegedly discloses an “unidirectional microphone.” However, the cited passage merely discloses a microphone that is “sensitive,” and therefore, does not disclose or suggest an unidirectional microphone. Notably, the sensitivity of a microphone is independent of, and has nothing to do with, whether the microphone is unidirectional or not (i.e., a particular microphone may or may not be sensitive, regardless of whether it is unidirectional). Griffin also does not disclose a unidirectional microphone, and therefore, fails to make up the deficiency present in Frank. For at least the foregoing reason, Applicant respectfully requests that the rejection for claims 3 and 22, and their respective dependent claims, be withdrawn.

Claim 3 also recites a region of a microphone having a lowest sensitivity is aimed at a speaker when a microphone boom is located in any of said plurality of positions. Claim 22 recites similar limitations. As similarly discussed with reference to claim 1, Frank does not disclose or suggest such limitations. Griffin also does not disclose or suggest the above limitations, and therefore, fails to make up the deficiencies present in Frank. Since neither Frank nor Griffin discloses or suggests the above limitations, they cannot be combined to form the resulting subject matter of claims 3 and 22. For this additional reason, Applicant respectfully requests that the rejection for claims 3 and 22, and their respective dependent claims, be withdrawn.


**VIII. CONCLUSION**

For at least the foregoing reasons, Applicant respectfully request that the Board of Patent Appeals and Interferences overrule the claim rejections, and find claims 1, 3, and 22, and their respective dependent claims, allowable.

Respectfully submitted,

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Dated: September 4, 2007

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## **APPENDIX A: Pending Claims**

### **Listing of Appealed Claims**

1. (Previously Presented) A speakerphone comprising:
  - a housing;
  - a speaker coupled to said housing;
  - a microphone boom pivotably coupled to said housing, said microphone boom having at least a first position and a second position; and
  - a microphone mounted to said microphone boom;wherein a region of said microphone having a lowest sensitivity is aimed at said speaker when said microphone boom is located in either said first position or said second position.
2. (Previously Presented) The speakerphone of claim 1, wherein said speaker is located along an axis extending from said region of said microphone regardless of a position associated with said microphone boom.
3. (Previously Presented) A speakerphone comprising:
  - a housing;
  - a speaker mounted to said housing;
  - a unidirectional microphone;



a microphone boom pivotably coupled to said housing, said microphone boom capable of being placed at a plurality of positions, said unidirectional microphone mounted at a distal end of said microphone boom, wherein a region of said microphone having a lowest sensitivity is aimed at said speaker when said microphone boom is located in any of said plurality of positions; and

a wireless networking module adapted to transmit first signals via a short distance wireless network to a peripheral electronic device and to receive second signals via said short distance wireless network from said peripheral electronic device, wherein said first signals are initially received by said unidirectional microphone, and wherein said second signals are output by said speaker after receipt by said wireless network module.

4. (Original) The speakerphone of claim 3, wherein said peripheral electronic device forwards said first signals via a long distance communication network and wherein said second signals are transmitted to said peripheral electronic device via said long distance communication network.

5. (Original) The speakerphone of claim 4, wherein said long distance communication network is a cellular telephone network.

6. (Original) The speakerphone of claim 3, wherein said peripheral electronic device is a cellular telephone.

7. (Original) The speakerphone of claim 3, wherein said wireless networking module is a Bluetooth enabled networking module and said peripheral electronic device is a Bluetooth enabled cellular telephone.

8. (Original) The speakerphone of claim 3, wherein said wireless networking module is a Bluetooth enabled networking module and wherein said peripheral electronic device further comprises a Bluetooth enabled adaptor.
9. (Original) The speakerphone of claim 3, wherein said wireless networking module is an IEEE802.11 enabled networking module and said peripheral electronic device is an IEEE802.11 enabled cellular telephone.
10. (Original) The speakerphone of claim 3, wherein said wireless networking module is an IEEE802.11 enabled networking module and wherein said peripheral electronic device further comprises an IEEE802.11 enabled adaptor.
11. (Original) The speakerphone of claim 3, further comprising at least one status indicator.
12. (Original) The speakerphone of claim 3, further comprising a display means coupled to said housing.
13. (Original) The speakerphone of claim 12, wherein said display means is capable of displaying at least one of battery level, signal level, volume level, call status, speakerphone status, pairing status, caller identification, time, elapsed time, date, phone history, phone lists, and calendar.

14. (Original) The speakerphone of claim 12, wherein said display means is capable of displaying a text message.
15. (Previously Presented) The speakerphone of claim 12, wherein said display means is selected from the group of display means consisting of liquid crystal displays, light emitting polymer displays, electroluminescent displays, active matrix electroluminescent displays, organic thin film transistor displays, active matrix organic light emitting diode displays, amorphous silicon integrated displays, and pliable display technology displays.
16. (Original) The speakerphone of claim 3, further comprising a sound processor.
17. (Original) The speakerphone of claim 3, further comprising a portable power source.
18. (Original) The speakerphone of claim 17, further comprising means for coupling an external power source to said speakerphone.
19. (Original) The speakerphone of claim 3, further comprising means for coupling a mounting bracket to said housing.
20. (Original) The speakerphone of claim 3, further comprising a power switch.
21. (Original) The speakerphone of claim 3, further comprising a volume control.

22. (Previously Presented) A speakerphone comprising:
- a housing;
  - a speaker mounted to said housing;
  - a unidirectional microphone;
  - a sound processor coupled to said unidirectional microphone;
  - a portable power source coupled to said sound processor;
  - a microphone boom pivotably coupled to said housing, said microphone boom capable of being placed at a plurality of positions, said unidirectional microphone mounted at a distal end of said microphone boom, wherein a region of said microphone having a lowest sensitivity is aimed at said speaker when said microphone boom is located in any of said plurality of positions; and
  - a Bluetooth enabled networking module adapted to transmit first signals to a Bluetooth enabled cellular telephone and to receive second signals from said Bluetooth enabled cellular telephone.
23. (Previously Presented) The speakerphone of claim 1, wherein the microphone comprises a unidirectional microphone.
24. (Previously Presented) The speakerphone of claim 1, wherein the microphone exhibits a cardioid polar pattern.
25. (Previously Presented) The speakerphone of claim 3, wherein the microphone exhibits a cardioid polar pattern.

26. (Previously Presented) The speakerphone of claim 3, wherein the microphone is most sensitive to sound arriving from only one direction.
27. (Previously Presented) The speakerphone of claim 22, wherein the microphone exhibits a cardioid polar pattern.
28. (Previously Presented) The speakerphone of claim 22, wherein the microphone is most sensitive to sound arriving from only one direction.

**APPENDIX B: EVIDENCE APPENDIX**

The evidence in this appendix was submitted by Applicant in a response to Office Action dated September 25, 2006, and was entered in the prosecution record.

**APPENDIX C: RELATED PROCEEDINGS APPENDIX**

None